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| APPLICATION NO.                   | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|-----------------------------------|---------------|----------------------|-------------------------------|------------------|
| 10/053,238                        | 10/29/2001    | Kazuhiko Honda       | 101749.56391US                | 8692             |
| 75                                | 90 01/24/2006 |                      | EXAM                          | INER             |
| Crowell & Moring LLP              |               |                      | PHAM, HAI CHI                 |                  |
| Intellectual Prop<br>PO Box 14300 | perty Group   |                      | ART UNIT                      | PAPER NUMBER     |
| Washington, DC 20044-4300         |               |                      | 2861                          |                  |
|                                   |               |                      | D. W. C. L. C. D. 01 10 10 00 | _                |

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |  |   | ۲              |  |  |  |  |
|--|--|---|----------------|--|--|--|--|
|  | Application No.  | Applicant(s)  | <del>,</del> - |  |  |  |  |
|  | 10/053,238   | HONDA ET AL.  |                |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit  | _              |  |  |  |  |
|  | Hai C. Pham  | 2861  |                |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | pears on the cover sheet w   | ith the correspondence address  | _              |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D.  Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNION 36(a). In no event, however, may a will apply and will expire SIX (6) MONO, cause the application to become Af | CATION. repty be timely filed ITHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133). |                |  |  |  |  |
| Status   |  |   |                |  |  |  |  |
| 1) Responsive to communication(s) filed on 04 N  | lovember 2005.   |   |                |  |  |  |  |
| 2a) This action is <b>FINAL</b> . 2b) ☑ This   | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.   |   |                |  |  |  |  |
| 3) Since this application is in condition for allowa   | nce except for formal mat  | ters, prosecution as to the merits is   |                |  |  |  |  |
| closed in accordance with the practice under E   | Ex parte Quayle, 1935 C.E  | D. 11, 453 O.G. 213.  |                |  |  |  |  |
| Disposition of Claims  |  |   |                |  |  |  |  |
| 4)⊠ Claim(s) <u>14-16, 20-22, 26-28, 30-55</u> is/are per  | nding in the application.  |   |                |  |  |  |  |
| 4a) Of the above claim(s) is/are withdra   | 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |                |  |  |  |  |
| 5)⊠ Claim(s) <u>14-16 and 20</u> is/are allowed.   | )⊠ Claim(s) <u>14-16 and 20</u> is/are allowed.  |   |                |  |  |  |  |
| 6)⊠ Claim(s) <u>21,22,26-28,30-33 and 38-55</u> is/are r   | Claim(s) <u>21,22,26-28,30-33 and 38-55</u> is/are rejected.   |   |                |  |  |  |  |
| 7)⊠ Claim(s) <u>34-37</u> is/are objected to.  |  |   |                |  |  |  |  |
| 8) Claim(s) are subject to restriction and/o   | or election requirement.   |   |                |  |  |  |  |
| Application Papers   |  |   |                |  |  |  |  |
| 9) The specification is objected to by the Examine   | er.  |   |                |  |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ acc   |  | •   |                |  |  |  |  |
| Applicant may not request that any objection to the  | drawing(s) be held in abeya  | nce. See 37 CFR 1.85(a).  |                |  |  |  |  |
| Replacement drawing sheet(s) including the correc  |  |   |                |  |  |  |  |
| 11) The oath or declaration is objected to by the Ex   | xaminer. Note the attache  | d Office Action or form PTO-152.  |                |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |   |                |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority document</li> <li>2. Certified copies of the priority document</li> <li>3. Copies of the certified copies of the priority application from the International Burea</li> <li>* See the attached detailed Office action for a list</li> </ul>   | ts have been received.<br>ts have been received in A<br>crity documents have beer<br>u (PCT Rule 17.2(a)).                           | Application No  received in this National Stage   |                |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/26/05.  | Paper No   | Summary (PTO-413)<br>(s)/Mail Date<br>Informal Patent Application (PTO-152)<br>                             |                |  |  |  |  |

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#### **DETAILED ACTION**

#### Allowable Subject Matter

1. The indicated allowability of claims 30-33 is withdrawn in view of the newly discovered reference to Ohashi et al. (JP 2000-169960). Rejections based on the newly cited reference follow.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohashi et al. (JP 2000-169960).

Ohashi et al. discloses an optical storage medium comprising a substantially flat optical disc, the disc including a reflective layer (6) and a visible light characteristic changing layer (phase changing type recording layer 4) provided over all the reflective layer, wherein the surfaces of the phase changing type recording layer have a rough texture (see Abstract).

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### Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 21-22, 26-28 and 38-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaka et al. (U.S. 6,329,035) in view of Onda (JP 11-110820).

Iwasaki et al. discloses an optical disk having a visible light characteristic changing layer which changes a visible characteristic of a light by exposure to a laser beam having entered from a label surface side of the optical disk (reversible thermosensitive recording layer 7, which changes transparency or color tone by heat from a laser beam), and an intermediate layer (6) being interposed between a first reflection layer (5) of the optical disc and the visible light characteristic changing layer.

However, Iwasaki et al. fails to teach the intermediate layer being a light scattering layer, which is translucence and has a light scattering characteristic, and a protective layer.

Onda discloses an optical recording medium having an organic dyestuff recording layer (2), a reflecting layer (3), a color tone controlling layer (5), an optional protective layer (4), and a light scattering layer (6) disposed adjacent to the reflecting layer (Fig. 5). [It is noted that the layer having a light scattering characteristic renders the incident light into an outgoing diffused light].

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the intermediate layer of the optical disc of lwasaki et al. as having a translucency and a light scattering characteristic as taught by Onda. The motivation for doing so would have been to improve the visibility of the image.

#### Iwasaki et al. further teaches:

- a buffer layer (intermediate layer 6) provided on the first reflection layer (5), and a second reflection layer (a second reflection layer is preferably provided on the back side of the reversible thermosensitive recording layer 7 for enhancing the contrast) (col. 12, lines 26-34) provided between the buffer layer and the visible light characteristic changing layer (7),
- a second substrate (substrate 11, Fig. 7) provided on the first reflection layer (7), and a second reflection layer provided on the second substrate (a second reflection layer is preferably provided on the back side of the reversible thermosensitive recording layer 7 for enhancing the contrast) (col. 12, lines 26-34).
- The visible light characteristic changing layer is a color-changing layer which undergoes coloring or change in color or hue by exposure of the laser beam (reversible thermosensitive recording layer 7, which changes transparency or color tone by heat from a laser beam),
- The color-changing layer is a heat sensitive layer (reversible thermosensitive recording layer 7, which changes color tone by heat from a laser beam) and two

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layers (reversible thermosensitive recording layer 7 and adhesive layer 9) fused or mixed together by exposure to the laser beam so as to change visible-light characteristic.

### Allowable Subject Matter

- 6. Claims 14-16, 20 are allowed.
- 7. Claims 34-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### Response to Arguments

8. Applicant's arguments with respect to claims 21-22, 26-28, 30-33 and 38-55 have been considered but are most in view of the new grounds of rejection.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HAI PHAM
PRIMARY EXAMINER

HarliPhan

January 21, 2006